

Page 38, line 5, delete "decided" and insert
--determined--;
line 6, delete "decided to be" and insert --it
is--.

Page 39, line 6, delete "prior art 11" and insert
--afore-mentioned Ullman publication--;
line 18, delete "to".

Page 40, line 2, delete "to";
line 16, delete "the";
line 18, delete "apply" and insert --be used--.

Page 41, line 7, delete "as well as" and insert --and--.

IN THE CLAIMS

Please amend the claims as follows:

A1

1. (Amended) A data warehouse system, comprising:
at least one client device for accepting a
processing request from a user;
at least one server provided with a database
[respectively] and used for searching said database according
to an access request from said client device;
at least one data collector for collecting data
requested by said user;
a database for storing data collected by said data
collector; and

a network for connecting said client device to a desired server via said data collector; wherein said data collector includes:;[]

a client management unit for managing at least one client device;

a query analysis unit for analyzing a request from said client device;

a replica creation request analysis unit for analyzing each replica creation request from said client device;

a communication control unit for [deciding] Selecting a procedure for accessing at least one of said servers according to [the] analysis result from said query analysis unit; and

A
B
a replica creation management unit for creating a replica according to an analyzed creation request and managing said replica using a replica management table which corresponds the content of said created replica to [the] information related to the location of said replica stored in said database; and

said server includes:;[]

a communication control unit for receiving a query analysis result transmitted from at least one of a plurality of said data collectors; and

a query processing unit for searching the database of each server and creating a response to said received query analysis result.

2. (Amended) A data warehouse system, comprising:
at least one client device for accepting a
processing request from a user;
at least one server provided with a database
[respectively] and used for searching said database according
to an access request from said client device;
at least one data collector for collecting data
requested by said user; and
a database for storing data collected by said data
collector; wherein
said data collector includes:[]
a replica creation request analysis unit for
analyzing a replica creation request from said client device;
a client management unit for grouping a plurality of
[clients] client devices which can share data according to an
analyzed creation request and managing a plurality of said
[clients] client devices; and
a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of said replica stored in
said database.[]

Claim 3, line 2, delete ";" and insert --,--;
line 5, delete "said" and insert --a--, same
line 5, after "client" insert --device--.

4. (Amended) A data warehouse system, comprising:

at least one client device for accepting a processing request from a user;

at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;

at least one data collector for collecting data requested by said user;

a database for storing data collected by said data collector; and

a network for connecting said client device to a desired server via said data collector; wherein

said data collector includes:[;]

a client management unit for managing at least one client device;

a query analysis unit for analyzing a request from said client device;

a replica creation request analysis unit for analyzing a replica creation request from said client device;

a communication control unit for [deciding] selecting a procedure for accessing at least one of a plurality of said servers according to [the] an analysis result from said query analysis unit;

a replica creation request analysis unit for analyzing a replica creation request from said client device;

and

a replica creation management unit for creating a replica according to an analyzed creation request and managing

~~said replica using a replica management table which corresponds the content of said created replica to the information related to the location of said replica stored in said database; and~~

~~said server includes:[;]~~

~~a communication control unit for receiving a query analysis result transmitted from at least one of a plurality of said data collectors;~~

~~a query processing unit for searching the database of each server and creating a response to [said] a received query analysis result;~~

A2
~~a delivery data management table which includes [the] a region condition, quality condition, delivery destination, and delivery method of [the] data to be delivered to said data collector; and~~

~~a delivery data management unit for managing said delivery data in accordance with said table.~~

5. (Amended) A data warehouse system, comprising:

~~at least one client device for accepting a processing request from a user;~~

~~at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;~~

~~at least one data collector for collecting data requested by said user; and~~

~~a database for storing data collected by said data collector; wherein~~

A2

 said data collector includes:[;]
 a client management unit for managing at least one
client device;
 a query analysis unit for analyzing a request from
said client device;
 a communication control unit for [deciding]
selecting a procedure for accessing at least one of said
servers according to an analysis result from said query
analysis unit;
 a replica creation request analysis unit for
analyzing a replica creation request from said client device;
and
 a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to the
information related to the location of said replica stored in
said database; and
 said server includes:[;]
 a communication control unit for receiving a query
analysis result transmitted from at least one of a plurality
of said data collectors;
 a query processing unit for searching the database
of each server and creating a response to [said] a received
query analysis result;
 a delivery data management table which includes
[the] a region condition, quality condition, delivery
destination, and delivery method of [the] data to be delivered

~~to said data collector;~~

~~a delivery data management unit for managing said delivery data in accordance with said table; and~~

~~a load management unit for managing the load information of said server and estimating the server load when processing a delivery request accepted newly for said delivery data.~~

6. (Amended) A data warehouse system, comprising:

~~at least one client device for accepting a processing request from a user;~~

~~at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;~~

~~at least one data collector for collecting data requested by said user; and~~

~~a database for storing data collected by said data collector; wherein~~

~~said data collector includes:[;]~~

~~a client management unit for managing at least one client device;~~

~~a query analysis unit for analyzing a request from said client device;~~

~~a replica creation request analysis unit for analyzing a replica creation request from said client device;~~

~~a communication control unit for [deciding] selecting a procedure for accessing at least one of a plurality of said servers according to [the] an analysis~~

~~result from said query analysis unit;
a replica creation request analysis unit for
analyzing a replica creation request from said client device;
and~~

~~a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of said replica stored in
said database; and~~

~~A2
said server creates a replica in said data collector
before processing a query from a client device, according to a
replica creation request to which said client device gives
part or the whole of the data to access when [in] processing
[of] a query.~~

~~Claim 7, line 1, delete ";" and insert --,--;
line 3, delete ";" and insert --:--;
line 4, delete "deciding" and insert
--determining--;~~

~~line6, delete "said" (second occurrence) and
insert --a--.~~

~~Claim 8, line 2, delete ";" and insert --,--;
line 3, delete ";" and insert --:--.~~

~~9. (Amended) A data warehouse system, comprising:
at least one client device for accepting a
processing request from a user;~~

at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;

at least one data collector for collecting data requested by said user; and

a database for storing data collected by said data collector; wherein

said data collector includes:[;]

a client management unit for managing at least one client device;

a query analysis unit for analyzing a request from said client device;

a communication control unit for [deciding] selecting a procedure for accessing at least one of said servers according to [the] an analysis result from said query analysis unit;

a replica creation request analysis unit for analyzing a replica creation request from said client device, said request including at least one of the conditions for specifying [the] a range, precision, freshness, and priority of [the] data to be accessed by said client device; and

a replica creation management unit for creating a replica according to an analyzed creation request and managing said replica using a replica management table which corresponds the content of said created replica to [the] information related to the location of said replica stored in said database.

10. (Amended) A data warehouse system in accordance with claim 9, [;] wherein
said server includes:[;]
a data extraction unit for extracting data for a replica creation request including a condition for specifying a data precision through any of the following processings according to the object data type:[.]

- (1) Sampling or extracting each field for record data in cooperative databases;
- (2) Creating a summary or extracting of each keyword for text data;
- (3) Reversible compression, irreversible compression, frame extraction, reduction of colors, reduction of resolution, or contraction in size for still picture image data;
- (4) Reduction of frames or compression of picture images in each frame for dynamic ~~picture~~ image data; and
- (5) Reduction of sampling rates, adjustment of sound quality, or conversion to character data for voice data.

A^B

11. (Amended) A data warehouse system, comprising:
at least one client device for accepting a processing request from a user;
a plurality of servers provided with a database [respectively] and used for searching said database according to an access request from said client device;
at least one data collector for collecting data requested by said user; and
a database for storing data collected by said data

~~collector; wherein~~

~~said data collector includes:[;]~~

~~a client management unit for managing at least one
client device;~~

~~a query analysis unit for analyzing a request from
said client device;~~

~~a communication control unit for [deciding]
selecting a procedure for accessing at least one of a
plurality of said servers according to [the] an analysis
result from said query analysis unit;~~

~~a replica creation request analysis unit for
analyzing a replica creation request from said client device;
and~~

~~A3~~
~~a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of said replica stored in
said database; and~~

~~said replica creation management unit includes:[;]~~

~~a data collector negotiation unit for negotiating
with said server to [decide] determining data for which a
replica is to be created according to said replica creation
request and computer resources usable by said data collector
and said server;~~

~~said server includes:[;]~~

~~a communication control unit for receiving a query
analysis result transmitted from at least one of a plurality~~

~~of said data collectors;~~

~~a server negotiation unit for negotiating with said data collector for replica creation conditions according to computer resources usable by said server; and~~

~~A3
a query processing unit for searching a database at said server side and [create] for creating a response to a received query analysis result.~~

Claim 12, line 2, delete ";" and insert --,--;

line 3, after "server" insert --further--, same line 3, delete ";" and insert --:--.

Claim 13, line 2, delete ";" and insert --,--;

line 5, delete "the".

Claim 14, line 2, delete ";" and insert --,--;

line 3, delete ";" and insert --:--;

line 4, delete "of" and insert --indicating--.

Claim 15, line 2, delete ";" and insert --,--;

line 3, delete ";" and insert --:--.

Claim 16, line 2, delete ";" and insert --,--;

line 5, after "client" insert --device--.

Claim 17, line 2, delete ";" and insert --,--.

Claim 18, line 2, delete ";" and insert --,--.

19. (Amended) A data warehouse system, comprising:

at least one client device for accepting a processing request from a user;

at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;

at least one data collector for collecting data requested by said user;

a database for storing data collected by said data collector; and

a network for connecting each client device to [its] a desired server via said data collector; wherein

said data collector includes:[;]

AH

a client management unit for managing at least one client device;

B

a query analysis unit for analyzing a request from said client device;

a query processing unit for processing a query analyzed in said query analysis unit;

a communication control unit for [deciding] selecting a procedure for accessing at least one of said servers connected to said network according to [the] an analysis result from said query analysis unit;

a replica creation request analysis unit for analyzing a replica creation request from said client device; and

a replica creation management unit for creating a replica according to an analyzed creation request and managing

said replica using a replica management table which corresponds the content of said created replica to [the] information related to the location of said replica stored in said database; and

said server includes:[;]

a communication control unit for receiving a query analysis result transmitted from at least one of a plurality of said data collectors through said network;

a query processing unit for searching a database at said server side and [create] for creating a response to a received query analysis result; and

means for [controlling] effecting control so that at least either said server or said data collector can select whether to delivery data under the control of said server or said data collector.

A4
B
20. (Amended) A data warehouse system, comprising:

at least one client device for accepting a processing request from a user;

at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;

at least one data collector for collecting data requested by said user;

a database for storing data collected by said data collector; and

a network for connecting each client device to [its] a desired server via said data collector; wherein

A4

 said data collector includes:[;]
 a client management unit for managing at least one
client device;
 a query analysis unit for analyzing a request from
said client device;
 a communication control unit for [deciding]
selecting a procedure for accessing at least one of said
servers connected to said network according to an analysis
result from said query analysis unit;
 a replica creation request analysis unit for
analyzing a replica creation request from said client; and
 a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of said replica stored in
said database; and

 said query analysis unit includes:[;]
 a processing location decision unit for [deciding]
selecting a data collector which processes said query using
said replica management table;
 a replica usability decision unit for [deciding]
determining whether or not a query can be processed using a
replica stored in a data collector which should process said
query;
 a processing unit for directing said query
processing unit for a query processing using said replica
without transferring any query to said server if said query

~~processing is [decided] possible using said replica in said data collector; and~~

~~a transfer unit for transferring said query to said server if, said query processing is [decided] impossible using said replica stored in said data collector.~~

21. (Amended) A data warehouse system in accordance with claim 20~~,[;]~~ wherein

~~said processing location decision unit includes:
a processing unit [for deciding as] responsive to a result of said query analysis unit for determining whether or not the same value is taken in both said query and said replica or one of them includes the other; and~~

~~A4
a processing unit for [deciding] determining said position using said relationship of the same value or inclusion and said replica management table.~~

22. (Amended) A data warehouse system in accordance with claim 20~~,[;]~~ wherein

~~said processing location decision unit includes:
a processing unit [for deciding as] responsive to a result of said query analysis unit for determining whether or not the same value is taken in both said query and said replica or one of them includes the other;~~

~~a processing unit for judging whether or not the same value is taken in both said query and said replica or one of them includes the other;~~

~~a processing unit for [deciding] identifying said~~

A4
~~data collector in which said replica exists as a location to process said query if said relationship is decided "yes"; and a processing unit for [deciding] identifying said server as said location to process said query if said relationship is decided "no".~~

Claim 23, line 5, delete ";" and insert ---:---;
line 6, delete "deciding" and insert
--determining--;
line 8, delete "deciding" and insert
--determining--.

A5
B
24. (Amended) A data warehouse system, comprising:
at least one client device for accepting a processing request from a user;
at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;
at least one data collector for collecting data requested by said user;
a database for storing data collected by said data collector; and
a network for connecting each client device to [its] a desired server via said data collector; wherein
said data collector includes:[;]
a client management unit for managing at least one client device;
a query analysis unit for analyzing a request from

~~said client device;~~

~~a communication control unit for [deciding]
Selecting a procedure for accessing at least one of a
plurality of said servers connected to said network according
to [the] an analysis result from said query analysis unit;~~

~~a replica creation request analysis unit for
analyzing a replica creation request from said client device;
and~~

~~A5
a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica so that said replica can be shared among [said]
cooperative data collectors when [in] processing said query
using a replica management table which corresponds the content
of said created replica to the information related to the
location of said replica stored in said database; and~~

~~said server includes:[;]~~

~~a communication control unit for receiving a query
analysis result transmitted from at least one of said
cooperative data collectors through said network; and~~

~~a query processing unit for searching a database at
said server side and creating a response to a received query
analysis result.~~

~~Claim 25, line 2, delete ";" and insert ---,--;~~

~~line 3, delete ";" and insert ---:--.~~

Claim 26, line 4, after "client" (both occurrences)
insert

--device--;

line 6, after "client" insert --device--;
line 8, delete "said" and insert --an--;
line 15, delete "the".

Claim 27, line 2, delete "said" and insert --the--.

28. (Amended) A method [for] of collecting data used by
a data warehouse, comprising:[;]

a client management step [for] of managing at least
one client device and collecting data requested by said client
device;

a query analyzing step [for] of analyzing each query
request from said client device;

a replica creation request analyzing step [for] of
analyzing a replica creation request included in said query
request;

a replica database storing step [for] of storing a
replica created according to said analyzed creation request;
and

a replica creation managing step [for] of creating a
replica according to [said] an analyzed creation request and
managing said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of a replica stored in
[said] a replica database.

29. (Amended) A method [for] of collecting data used by

a data ~~warehouse~~, comprising: ;]

a client management step [for] of managing at least one client device and collecting data requested by said client device;

a query analyzing step [for] of analyzing each query request from said client device;

a replica creation request analyzing step [for] of analyzing a replica creation request included in said query request;

a replica creation managing step [for] of creating a replica according to [said] an analyzed creation request and managing said replica using a replica management table which corresponds the content of said created replica to [the] information related to the location of a replica stored in [said] a replica database; and

a query processing step [for] of processing [said] an analyzed query request using a replica managed by said replica management table.

Claim 30, line 3, delete "according" and insert
--accordance--.

31. (Amended) A data warehouse system, comprising:

at least one client device for accepting a processing request from a user;

at least one server provided with a database [respectively] and used for searching said database according to an access request from said client device;

a network for connecting each client device to [its]
a desired server; and

at least one data collector connected to said
network and used for collecting data requested by said user;

a database for storing data collected by said data
collector; wherein

said data collector includes:[;]

a client management unit for managing at least one
client device;

a query analysis unit for analyzing a request from
said client device;

A1
a communication control unit for [deciding]
selecting a procedure for accessing at least one of a
plurality of said servers connected to said network according
to an analysis result from said query analysis unit;

a replica creation request analysis unit for
analyzing a replica creation request from said client device;
and

a replica creation management unit for creating a
replica according to an analyzed creation request and managing
said replica using a replica management table which
corresponds the content of said created replica to [the]
information related to the location of said replica stored in
said database; and

said server includes:[;]

a communication control unit for receiving a query
analysis result transmitted from at least one of a plurality
of said data collectors through said network; and

~~a query processing unit for searching a database at
said server side and creating a response to a received query
analysis result.~~

Claim 32, line 2, delete ";" and insert --,--;
line 5, after "client" insert --device--.

AS
33. (Amended) An accounting system used in a data warehouse, comprising:
a client managing unit for managing at least one client device and collecting data requested from said client device;

a replica creation request analysis unit for analyzing a replica creation request from said client device; and

a replica creation management unit for creating a replica according to an analyzed creation request and managing said replica using a replica management table which corresponds the content of a created replica to [the] information related to the location of said replica stored in a database; wherein

said replica creation management unit includes:
a data collector side negotiation unit for negotiating with said server according to said replica creation request and computer resources usable by said data collector and by said server, thereby [deciding] determining data for which a replica is to be created, as well as a charge for said data; and

a server side negotiation unit for negotiating with said data collector for replica creation conditions including said charge according to computer resources usable by said server.

34. (Amended) A method of accounting used in a data warehouse, comprising:[;]

a client managing step [for] of managing at least one client device and collecting data requested from said client device;

a data collector side negotiating step [for deciding] of determining data for which a replica is to be created, as well as a charge for said data through negotiation with said server according to said replica creation request and computer resources usable by both of said data collector and said server using a replica creation request analysis unit for analyzing a replica creation request from said client device and a replica management table which corresponds the content of said created replica to [the] information related to the location of a replica stored in said replica database; and

a server side negotiating step [for] of negotiating with said data collector for a replica creation condition including said charge according to computer resources usable by said server.